



Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at <http://about.jstor.org/participate-jstor/individuals/early-journal-content>.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

English and American Tool Builders. By JOSEPH WICKHAM ROE. New Haven: Yale University Press, 1916. 8vo, pp. 294. \$3.00 net.

The progress of the industrial arts depends directly upon the invention and improvement of machine tools. Modern manufacturing processes have been made possible only as a result of the inventions of the tool-makers of the last century and a half. Realizing this fact, it seems strange that so little attention has been given to the lives and history of the men who made this development possible. This neglect, however, may be understood when we take into consideration certain universal human characteristics. The achievements of the present and future always seem to occupy the public mind to the exclusion of those of the past. And when a glance at the past is taken, it is always those deeds which are spectacular and which have produced results immediately apparent which attract the greatest attention. Thus the prosaic, silent work of the tool-builders, despite its fundamental importance and far-reaching consequences, has been strangely neglected.

This book therefore fills an important place. The important tool-builders of the period from 1775 to 1850, during which practically all the modern tools were developed, were almost without exception English. The lives and works of these men, fascinating in themselves, are told in a straightforward style which causes the casual reader to read on and on. The picture one sees behind the words is a picture of men of strength and power using all their cunning to make the forces of nature do their bidding.

Interesting chapters in the history of the English tool-builders of this period treat of John Wilkinson, a manufacturer of cannon, who by the invention of an accurate boring machine made Watt's steam engine commercially successful; Joseph Braham, the inventor and manufacturer of locks, whose shop was the training school of many later famous inventors; Samuel Bentham, inspector-general of the British navy; Marc Brunel, engaged in engineering in America for many years, who together with Bentham developed a complete set of ship-block machinery of almost modern form; Henry Maudslay, who by combining a wonderful mechanical skill, a pleasing personality, and an unequaled inventive capacity became the unquestioned leader in the development of machine tools; the group of inventors of the metal planer; the mathematicians who worked out the modern system of gearing; Fairbairn, the builder of iron ships; Bodmer, the gunmaker; Nasmyth, the inventor of the steam hammer; and Whitworth, the developer of higher standards of accuracy.

Up to 1850 practically all of the improvements in the design of tools were made in England. A few good mechanics were at work in New England during the last part of the eighteenth century, but the restrictive policy of England and the lack of a wide market prevented them from supplying more than local needs.

The author attributes the rise of American tool-builders after 1850 largely to the system of interchangeable manufacture and the general use of accurate-working gauges. The system of interchangeable manufacture was first used

in the manufacture of firearms. Eli Whitney, the inventor of the cotton gin, Simeon North, Samuel Colt, Pratt & Whitney, and Robbins & Lawrence were the principal manufacturers of arms who developed this system, and their lives and work are narrated in detail.

The work of Brown & Sharpe, who did much to increase the accuracy of measurements, forms an interesting chapter, and the remainder of the book narrates the spread of tool-building from Rhode Island through central New England, the growth of the brass industry in the Naugatuck Valley, the rise of Philadelphia as a great tool-building center, and the development of western machine-shops since 1880. These last chapters are a chronicle of the achievements of a great number of firms both large and small.

It would be unfair to say that the important lines of development of machine tools have been lost sight of by the author, for except in the last few chapters these are kept well in mind. While it is true that the book is in reality a series of interesting anecdotes, yet taken as a whole it is a well-balanced history of the lives and work of the more important English and American tool-builders from 1775 to the present time.

Contemporary Politics in the Far East. By STANLEY K. HORNBECK.

New York: D. Appleton & Co., 1916. 8vo, pp. xii+466. \$3.00 net.

Within the last two decades many books have been written on Japan, on China, and on the broader oriental questions. Some have been special treatises, others very general; few have been devoted to the purely political problems and none have been addressed to the giving of a brief history of Chinese and Japanese politics as they bear on the present crisis in the Far East. Professor Hornbeck, one-time instructor of law in the Chekiang Provincial College and in the Mukden Law College, has made a first-hand study of the political problems of the Orient and gives in this book, partly out of his own experience, a story of the genesis and development of the "prominent institutions, motives, and forces" which underlie and contribute to the present situation. The object of the book is to combine the political features in such a way as to furnish a background for a study of present and future tendencies in Far Eastern politics.

The work is written in two parts. The arrangement of the first part is topical rather than chronological and has involved considerable repetition; however, the story is cumulative, each succeeding topic leading to the last part. Book I treats of the political history of China and Japan; it describes how the Chinese people, holding to *laissez-faire* and "responsible government," brought about the downfall of the old régime, inaugurated the provisional government, and incidentally laid bare the Empire to the inroads of the foreign powers; it tells how the Japanese nation, holding to "paternalism" and "divine right," brought about the transition from feudalism to modern times with little more than a social tremor and placed the Empire in the front rank of world-powers.